

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A method for production of three-dimensional bodies by successive fusing together of selected areas of a powder bed, which parts correspond to successive cross sections of the three-dimensional body, the method comprising:

applying powder layers to a work table, and

alternately supplying energy from one radiation gun, according to an operating scheme determined for the powder layer, between two or more geometrically separate positions of said selected area by moving a focal point of the radiation gun between said geometrically separate positions, where said supplying includes

forming a cross section of said three-dimensional body by fusing together the powder in said area, such that said moving a focal point creates two or more fusion zones that propagate simultaneously through the selected area during said forming.

2. (Cancelled)

3. (Previously Presented) The method as claimed in claim 1, said alternately supplying energy including alternately supplying energy at said fusion zones at a speed which corresponds to a wave propagation speed of the fusion zone.

4. (Previously Presented) The method as claimed in claim 3, the method further including estimating said wave propagation speed from information provided by measuring the temperature distribution of a surface layer of said selected area.

5. (Previously Presented) The method as claimed in claim 3, the method further including estimating said wave propagation speed by calculating an energy balance for an area comprising said geometrically separate positions, said wave propagation speed being obtained from a model of a thermal conductivity equation set up for said area.

6. (Previously Presented) The method as claimed in claim 1, the method further including calculating an energy balance for at least one part area within each powder layer, said calculating including determining whether energy radiated into the part area is sufficient to maintain a defined working temperature of the part area.

7. (Previously Presented) The method as claimed in claim 6, said supplying energy including supplying, in addition to energy for fusing together the part area, energy for heating the part area to a defined working temperature if the result of the energy balance calculation is that there is not sufficient energy for maintaining the part area at the defined working temperature.

Claims 8-17 (Cancelled)